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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/593,607

09/21/2006

Takeo Yajima

4724-0038WOUS

1929

35301

7590

03/07/2011

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EXAMINER

HILTON, ALBERT

ART UNIT

PAPER NUMBER

1716

MAIL DATE

DELIVERY MODE

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PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Advisory Action</b> <b>Before the Filing of an Appeal Brief</b>	<b>Application No.</b> 10/593,607	<b>Applicant(s)</b> YAJIMA, TAKEO	
	<b>Examiner</b> Albert Hilton	<b>Art Unit</b> 1716	

**--The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

THE REPLY FILED 22 February 2011 FAILS TO PLACE THIS APPLICATION IN CONDITION FOR ALLOWANCE.

1. ☒ The reply was filed after a final rejection, but prior to or on the same day as filing a Notice of Appeal. To avoid abandonment of this application, applicant must timely file one of the following replies: (1) an amendment, affidavit, or other evidence, which places the application in condition for allowance; (2) a Notice of Appeal (with appeal fee) in compliance with 37 CFR 41.31; or (3) a Request for Continued Examination (RCE) in compliance with 37 CFR 1.114. The reply must be filed within one of the following time periods:

- a) ☐ The period for reply expires \_\_\_\_\_ months from the mailing date of the final rejection.  
 b) ☐ The period for reply expires on: (1) the mailing date of this Advisory Action, or (2) the date set forth in the final rejection, whichever is later. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of the final rejection.

Examiner Note: If box 1 is checked, check either box (a) or (b). ONLY CHECK BOX (b) WHEN THE FIRST REPLY WAS FILED WITHIN TWO MONTHS OF THE FINAL REJECTION. See MPEP 706.07(f).

Extensions of time may be obtained under 37 CFR 1.136(a). The date on which the petition under 37 CFR 1.136(a) and the appropriate extension fee have been filed is the date for purposes of determining the period of extension and the corresponding amount of the fee. The appropriate extension fee under 37 CFR 1.17(a) is calculated from: (1) the expiration date of the shortened statutory period for reply originally set in the final Office action; or (2) as set forth in (b) above, if checked. Any reply received by the Office later than three months after the mailing date of the final rejection, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### NOTICE OF APPEAL

2. ☐ The Notice of Appeal was filed on \_\_\_\_\_. A brief in compliance with 37 CFR 41.37 must be filed within two months of the date of filing the Notice of Appeal (37 CFR 41.37(a)), or any extension thereof (37 CFR 41.37(e)), to avoid dismissal of the appeal. Since a Notice of Appeal has been filed, any reply must be filed within the time period set forth in 37 CFR 41.37(a).

#### AMENDMENTS

3. ☐ The proposed amendment(s) filed after a final rejection, but prior to the date of filing a brief, will not be entered because
- (a) ☐ They raise new issues that would require further consideration and/or search (see NOTE below);  
 (b) ☐ They raise the issue of new matter (see NOTE below);  
 (c) ☐ They are not deemed to place the application in better form for appeal by materially reducing or simplifying the issues for appeal; and/or  
 (d) ☐ They present additional claims without canceling a corresponding number of finally rejected claims.

NOTE: \_\_\_\_\_. (See 37 CFR 1.116 and 41.33(a)).

4. ☐ The amendments are not in compliance with 37 CFR 1.121. See attached Notice of Non-Compliant Amendment (PTOL-324).  
 5. ☐ Applicant's reply has overcome the following rejection(s): \_\_\_\_\_.  
 6. ☐ Newly proposed or amended claim(s) \_\_\_\_\_ would be allowable if submitted in a separate, timely filed amendment canceling the non-allowable claim(s).  
 7. ☒ For purposes of appeal, the proposed amendment(s): a) ☒ will not be entered, or b) ☐ will be entered and an explanation of how the new or amended claims would be rejected is provided below or appended.  
 The status of the claim(s) is (or will be) as follows:  
 Claim(s) allowed: \_\_\_\_\_.  
 Claim(s) objected to: \_\_\_\_\_.  
 Claim(s) rejected: 5-9 and 13.  
 Claim(s) withdrawn from consideration: 1-4, 10-12.

#### AFFIDAVIT OR OTHER EVIDENCE

8. ☐ The affidavit or other evidence filed after a final action, but before or on the date of filing a Notice of Appeal will not be entered because applicant failed to provide a showing of good and sufficient reasons why the affidavit or other evidence is necessary and was not earlier presented. See 37 CFR 1.116(e).  
 9. ☐ The affidavit or other evidence filed after the date of filing a Notice of Appeal, but prior to the date of filing a brief, will not be entered because the affidavit or other evidence failed to overcome all rejections under appeal and/or appellant fails to provide a showing a good and sufficient reasons why it is necessary and was not earlier presented. See 37 CFR 41.33(d)(1).  
 10. ☐ The affidavit or other evidence is entered. An explanation of the status of the claims after entry is below or attached.

#### REQUEST FOR RECONSIDERATION/OTHER

11. ☒ The request for reconsideration has been considered but does NOT place the application in condition for allowance because:  
 See continuation sheet.  
 12. ☐ Note the attached Information *Disclosure Statement*(s). (PTO/SB/08) Paper No(s). \_\_\_\_\_.  
 13. ☐ Other: \_\_\_\_\_.

/Parviz Hassanzadeh/  
 Supervisory Patent Examiner, Art Unit 1716

/Albert Hilton/  
 Examiner, Art Unit 1716

Regarding claim 9, applicant argues that incorporating the pump (16) and nozzle (18) of Yajima into a single body would eliminate the advantage that the solution delivery path (17) can be easily exchanged to allow the chemical supply system to be easily maintained.

The examiner maintains that incorporating the nozzle (18) of Yajima directly into the main body (1) of Yajima would entirely eliminate the need for those portions of the delivery path (17) that extend outside the main body (1). The examiner argues that maintaining the supply system would, in fact, greatly simplify maintenance of the system, as there would be no need to exchange and maintain the external sections of path (17). While portions of the delivery path (17) located inside the main body (1) would still need to be maintained, these portions would be no more difficult to maintain with an integrated nozzle and main body than they would be with a separated nozzle and main body.

Applicant argues that the Isogai reference teaches an integrated pump and nozzle only in the context of dispensing a highly viscous liquid, and is therefore not analogous to the photoresist dispenser of Yajima. The examiner maintains that both Yajima and Isogai relate to the field of using a pump/nozzle system to dispense a liquid, and as such would be reasonably pertinent. Further, the examiner maintains that even though the liquid dispensed by Yajima is less viscous than that of Isogai, one of ordinary skill in the art would still appreciate that the advantages of reduced flow resistance would still be applicable to the Yajima system.

Applicant argues that Kawata's double-tube structure is only disposed on a secondary side of a chemical supplying means, and would not teach or suggest modifying the apparatus of Yajima to provide a double tube containing a primary-side chemical liquid flow path connected with one end of a pump. The examiner maintains that the test for obviousness is not whether the features of a secondary reference may be bodily incorporated into the structure of the primary reference; nor is it that the claimed invention must be expressly suggested in any one or all of the references. Rather, the test is what the combined teachings of the references would have suggested to those of ordinary skill in the art. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981). Further, the examiner argues that Kawata teaches the placement of the double-tube structure along the entire flow path of the chemical supply pipe (Kawata: column 4, lines 17-23), and that one of ordinary skill in the art would add the double tube of Kawata to the entire flow path of the system of Yajima, which includes the pump.

Applicant argues that the constant-temperature water of Kawata flows in the opposite direction of the resist liquid, which therefore teaches away from a device in which the constant-temperature water flows in the same direction as the resist liquid. The examiner maintains that the Kawata reference discloses one embodiment (Fig. 1) in which the constant-temperature water and resist liquid flow in the same direction. Further, altering the flow direction of the constant-temperature water would represent an obvious rearrangement of parts that would fail to produce any new and unexpected benefit, as the heat exchange between inner and outer tubes would still occur regardless of which direction the liquids are flowing.

Applicant argues that the adaptor of Butler requires an outwardly-vented air space, and therefore Butler requires a vented air space surrounding the temperature control water flow path. The examiner argues that Butler is relied upon for its teaching of a coupling to join two fluid flow paths, and that other features of Butler, such as a vented air space around the temperature control water, would not need to be bodily incorporated into the apparatus of Yajima in view of Isogai and Kawata. The vented air space of Butler is used to prevent leakage when the heat transfer fluid is under high pressure, and where a leak could potentially introduce toxic chemicals into drinking water (Butler: paragraph 12). As neither of these conditions are present in Yajima in view of Isogai and Kawata, one of ordinary skill in the art would recognize that it would not be necessary to include the air-vented space in the combination of Butler with Yajima in view of Isogai and Kawata.

Applicant argues that the T-adaptor of Butler features two flow paths that are branched apart outside a water tank, and that applicant's invention operates in an opposite manner to that of the Butler adaptor. Further, applicant argues that Butler does not teach how to connect a T-adaptor to a pump. The examiner maintains that Butler is only relied upon for its teaching of an adaptor for joining two flow paths to facilitate a heat exchange wherein a liquid from an external tube is coupled with the flow path of a second liquid (see paragraph 9 of the final office action). The Butler reference is not relied upon for its placement of a water tank or pump, and one of ordinary skill in the art would recognize that the location of the pump in the Butler reference would not need to be bodily incorporated into the apparatus of Yajima in view of Isogai and Kawata.